

# Brattleboro Reformer

## Turbine turns into savings for school

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Wednesday, December 28, 2005 - DOVER -- The wind turbine at the Dover Elementary School sounds like a pterodactyl beating its massive, leathery wings.

For months after it was erected in August, it was about as relevant as a prehistoric flying reptile, because of an incompatibility between the school's electrical system and that of the turbine.

But now, the turbine is generating electricity.

Ward Electric installed a transformer on the turbine last week, which had not been creating enough voltage.

Without the transformer, the turbine was producing about 208 volts, whereas it needs to produce 216 volts to be viable. The transformer boosted the power to approximately 232 volts.

This should save the school about 10 percent on its annual energy costs. According to the school budget, annual electricity costs for 2004/2005 were \$22,549.

By midweek, the turbine was producing between 2.9 and 2.1 kilowatts of power, according to Philip Bartlett, who has been helping the school with this project. The cost of the transformer was \$250, said Bartlett.

The school participated in a program through the Vermont Department of Public Service. The department's grant covered 80 percent of the cost of the turbine. The school paid for the remaining 20 percent.

The cost of an installed turbine ranges between \$32,000 and \$38,000.

Tom Halnon, of Vermont Green Energy Systems, said that he approached the Dover school board after hearing that administrators at the school might be interested in the project.

"I knew it would be a good site," said Halnon. "It's right on the ridge and it's getting all kinds of good wind."

Indeed, they are getting "good wind."

"This turbine and this site -- it's a very good site -- could provide all the energy needs [with the exception of heat] for a single-family home," said Halnon. The needs of the school, however, are greater than that of a typical home.

Halnon anticipates that this turbine will last 30 years with a minimum of routine maintenance.

The Marlboro Elementary School was also an approved applicant in the grant program, but its location on the eastern slope of a mountain could not harness enough wind to make a turbine viable.

In addition to the Dover school, the Department of Public Service also helped provide funds for wind turbines at the Addison Central School, the Danville School, Vermont Technical College, University of Vermont and Middlebury College.

The Department of Public Service is extending the Vermont Solar and Small Wind Incentive Program. According to Robert Ide, the department still has \$200,000 that is not committed. It is available to businesses, farms, schools, municipalities and individuals.

These monies are what remains from the \$1.5 million in federal funds secured by Sen. James Jeffords, I-Vt., in 2003 for renewable energy.